Working Together for Interoperability

**The IEC/ISO/ITU/UNECE MoU
on e-Business Standards**

April 2005

The Business Requirement

- **e-Business is becoming a cornerstone of the world economy**

- **Full benefits for consumers, industry and government demand a coherent set of Information and Communication Technology standards**
    - **open**
    - **interoperable**
    - **internationally accepted**

The Role of Standards

Standards required to:

- support dynamic development of e-business
  - across the manufacturing and service industries
  - along the global supply chain from supplier to consumer
  - throughout the lifecycle of products - may be decades
- provide effective services to the citizen

The MoU Vision

Our vision is to offer the environment
in which all key international organizations
can cooperate and contribute to the delivery and
promotion of the evolving set of e-Business standards,
and maximize their contribution to global commerce

The MoU Objective

- **The objective of the MoU is to encourage interoperability by:**
    - **Recognizing the risk of divergent or conflicting approaches to standardization**
    - **Avoiding duplication of efforts and, therefore, confusion amongst users**
    - **Ensuring intersectoral coherence**

The Stakeholders

The MoU on e-Business Standards

- **The MoU on e-Business Standards brings together:**

    - **The four global de jure standardisation bodies**

    - **Participating international user groups**

The four global de jure bodies

The International Electrotechnical Commission (IEC)

- http://www.iec.ch

The International Organization for Standardization (ISO)

- http://www.iso.org

The International Telecommunication Union (ITU)

- http://www.itu.int

The United Nations Economic Commission for Europe (UN/ECE)

- http://www.unece.org/cefact

The four global de jure bodies

- The de jure standards bodies are committed to operating by international consensus
- IEC and ISO are the "parents" of JTC1 on IT standards
- ISO, IEC and ITU each have a number of technical groups developing standards relevant to e-Business
- UN/ECE also involves countries outside Europe such as Canada and the USA
- UN/ECE is the "parent" of UN/CEFACT – the UN's Centre for Trade Facilitation and Electronic Business

Participating International User Groups

CALS International
- http://www.iiceb.org

NATO CALS
- http://www.dcnicn.com/ncmb

OASIS
- http://www.oasis-open.org

CEN/ISSS
- http://www.cenorm.be/isss

GS1 (formerly EAN.UCC)
- http://www.gs1.org

OAGI
- http://www.openapplications.org

SWIFT
- http://www.swift.com

Criteria for a Participating User Group

- Approved by the MoU signatories
- Legally "organized" group or registered consortium
- International in scope
- International in membership, and open to new members
- Multiple industry sectors, or a broad range of industry groups in a single sector
- Standards or specification development as a reason they were formed or exist
- Organized for at least one year
- Willing and interested to cooperate on interoperability and other common e-business technical issues
- Willing and able to send representatives to MoU/MG meetings

History of the MoU

- January, 1995 - original MoU was signed by IEC, ISO and UN/ECE

- 17 November, 1998 - revised MoU established the need/ability to add Participating International User Group input

- 24 March, 2000 - ITU signed

- Actual PDF of the latest MoU is available from the web at

  http://www.itu.int/ITU-T/e-business/mou/index.html

The Commitment

- **Formal Memorandum of Understanding (MoU) commits participants to:**
  - **Avoid divergent and conflicting approaches to standardization**
  - **Eliminate duplication of efforts**
  - **Provide a clear roadmap for users**
  - **Ensure intersectoral coherence in the field of electronic business**

The Principles

- **Information on work programmes will be shared openly**

- **The cooperation will focus on action, not discussion**

- **The process shall not represent an additional layer of bureaucracy in the standardization process**

- **Recommendations will be agreed by consensus among the participants**

- **Each organization will retain its own decision making process**

What is consensus?

- **ISO/IEC Guide 2:1996**

  "General agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments.

  NOTE Consensus need not imply unanimity."

Operations

- Monitors new initiatives
- Identifies topics of mutual interest and potential overlaps/conflicts
- Makes recommendations for action to resolve issues and harmonise activities
- Monitors progress
- Facilitates expert participation in the most appropriate development programmes
- Promotes role of the MoU to external organisations

Organisation

- **Management Group comprising representatives of participating organizations**
- **Meets twice a year**
- **Electronic dialogue between meetings**
- **Feedback into organizations**

The MoU Management Group has no formal power but a great deal of moral authority !

Key successes to date - Technical coordination

- **Summit on business information objects, leading to increased cooperation between developers**
- **Joint ISO/CEFACT working group on EDIFACT syntax**
- **Framework for OASIS/CEFACT cooperation on ebXML, including Joint Coordinating Committee**
- **Harmonisation strategy for Core Components**
- **Joint approach to UNTDED maintenance and update**
- **Recommendation on e-Business character sets**
- **Information exchange on XML usage**
- **Recommendation on XML schema languages**
- **Integration of permanent part marking for aerospace**
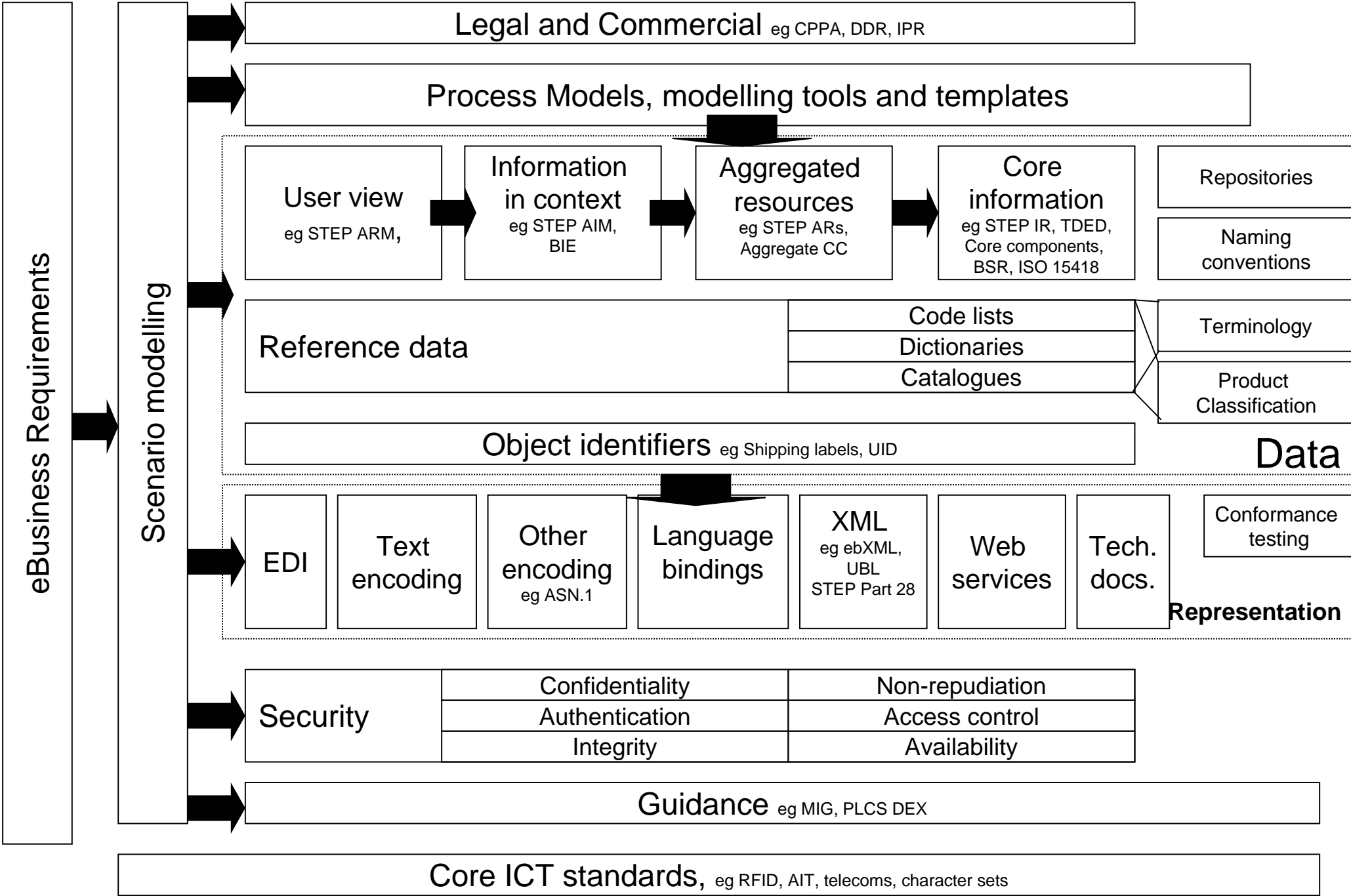
Key successes to date - Facilitation

- **Facilitation of consortium involvement with standards bodies - OASIS, OAGIS, GS1, SWIFT**
- **Greater visibility of potential conflicts in standards work, leading to scope adjustments - eg TC171**
- **Recognition of value of coordination function**
- **Extension to collaboration between CEFACT and OASIS on ebXML**
- **MoUs between standardisation groups to recognise shared activities - eg Freight Forwarding, eHealth**
- **Support for open information sources - eg DIFFUSE project**
- **Cross-organisational assessment of change management**

The MoU on e-Business Standards

Active areas of coordination (1)

- **Framework for eBusiness standards**
    - **Includes CEFACT and OASIS models**
    - **Actively supported by NIST eBSC activity**
    - **Aligned with open-edi model**

- **Open registry for eBusiness standards work**
    - **Metadata and mechanism to be defined**
    - **Need federated approach, with moderation for consistency**

eBusiness Requirements

Scenario modelling

Legal and Commercial eg CPPA, DDR, IPR

Process Models, modelling tools and templates

User view eg STEP ARM,	→	Information in context eg STEP AIM, BIE	→	Aggregated resources eg STEP ARs, Aggregate CC	→	Core information eg STEP IR, TDED, Core components, BSR, ISO 15418

Repositories

Naming conventions

Reference data

Code lists
Dictionaries
Catalogues

Terminology

Product Classification

Object identifiers eg Shipping labels, UID

Data

EDI	Text encoding	Other encoding eg ASN.1	Language bindings	XML eg ebXML, UBL STEP Part 28	Web services	Tech. docs.

Conformance testing

Representation

Security	Confidentiality	Non-repudiation
	Authentication	Access control
	Integrity	Availability

Guidance eg MIG, PLCS DEX

Core ICT standards, eg RFID, AIT, telecoms, character sets

Active areas of coordination (2)

- **Information architecture**
  - **Product classification schemes**
  - **e-Catalogues/Dictionaries - JWG1 defining consistent structure and content based on PLIB (ISO 13584/IEC61360)**
  - **Enterprise information models**
  - **Master data/code lists - repositories of valid values to support core components - multilingual support needed**
- **Terminology**
  - **Federated structure of definition databases**
  - **Appropriate business model for free downloads from the web**

Active areas of coordination (3)

- **ebXML Core Components methods and procedures**
  - **First four ebXML specifications from OASIS adopted as ISO 15000**
  - **CCTS 2.01 from CEFACT adopted as ISO 15000-5**
  - **Agreement to focus core component development through CEFACT TBG17 - OASIS, OAGIS 9.0, AIAG, CEFACT,….**
  - **Core component open development process to be clearly articulated by June 2005, based on initial experience with UBL and TDED components**
  - **Naming and Design Rules still open to debate – experiences from OAGI and UBL**
  - **Harmonisation of information modelling methods**

Active areas of coordination (4)

- Universal Business Language (UBL)
  - Version 1.0 accepted as OASIS standard - may go to ISO
  - Further development under CEFACT to be considered
  - Localisation in the Far East - opportunity for TC37
  - Seen as short term document oriented solution
  - Convergence with UNeDOCS and TDED to be explored
  - Open tools for generating UN Layout Key documents and HTML forms
- Global name and address standards
  - Multiple approaches to be considered in detail at the next meeting

Active areas of coordination (5)

- **Biometrics**
  - **build on existing work**
  - **clear framework required**
  - **core component requirements to be identified**
- **Secure container transportation**
  - **All relevant standards available - except biometrics and seals**
  - **Need to implement them to achieve secure supply chain**
- **Cultural diversity**
  - **Recommendations to be taken into account on new standards, and incorporated in JWG1 guidance**
  - **Lithuanian character sets**

Active areas of coordination (6)

- Web services
  - No clear definition
  - Multiple proprietary viewpoints
  - Results of ongoing JTC1 working group to be reviewed at next meeting
- Consistent URN for standards
  - ISO proposal to be reviewed
- ISO/IEC Strategic Advisory Group on Security
  - eBusiness related issues identified
- Data protection/privacy requirements to be defined by government bodies, for action by standards groups
- EU/US group on ICT regulation

Other highlights of Brussels meeting

- **Participation from JTC1, JWG1, ISO TCs 37, 46,154,184, CEFACT, OASIS, OAGI, CEN/ISSS**
- **Presentations of SWIFT work programme**
- **Progress updates from participating organisations**
- **MoU Annexes to be updated to reflect latest organisations**

Future Events

- **Next plenary meetings:**
    - **Beijing, 13-14 October 2005**
    - **Vancouver, March 2006 (following CEFACT)**

The key message

**The e-Business MoU Management Group works
to foster cooperation among standards developers,
so as to minimize the risk of divergent and
competing approaches to standardization,
to avoid duplication of efforts,
and to avoid confusion amongst
users of e-Business standards**

More information

The MoU on e-Business Standards

For more information on the MoU
and the events that are being held
under its umbrella,
please see the website at:

http://www.itu.int/ITU-T/e_business/

Backup slides

Standards groups involved (1)

- **ISO**
  - **TC 37**   **Terminology and language resources**
  - **TC 46**   **Information and documentation**
  - **TC 68**   **Banking, securities & other financial services**
  - **TC 154**   **Processes, data elements & documents in commerce, industry & administration**
  - **TC 184**   **Industrial automation systems and integration**
    - **TC 184/SC 4**   **Industrial Data**
    - **TC 184/SC 5**   **Architecture, communications and integration frameworks**
  - **TC 204**   **Intelligent transport systems**
  - **TC 215**   **Health informatics**

The MoU on e-Business Standards

IEC

ISO

ITU

The MoU on e-Business Standards

- **IEC**
  - **TC 3**   **Documentation and graphical symbols**
  - **TC 52**   **Printed circuits**
  - **TC 56**   **Dependability**
  - **TC 93**   **Design automation**

Standards groups involved (3)

- **ISO/IEC JTC 1**
  - **SC 27**   **IT Security techniques**
  - **SC 31**   **Automatic identification/ data capture**
  - **SC 32**   **Data management and Interchange**
  - **SC 34**   **Doc. description & processing langs.**
  - **SC 35**

- **ITU-T**
  - **SG 3**   **Tariff and accounting principles**
  - **SG 4**   **Telecommunication management**
  - **SG 13**   **Multi-protocol and IP-based networks**
  - **SG 16**   **Multimedia services, systems and terminals**
  - **SG 17**   **Telecommunication software**

The MoU on e-Business Standards

- **UN/CEFACT**
  - **FMG**   **Forum Management Group**
  - **TBG**   **International Trade and Business Processes Group**
  - **TMG**   **Techniques and Methodologies Group**
  - **ATG**   **Applied Technologies Group**
  - **ICG**   **Information Content Management Group**
  - **LG**   **Legal Group**

Participating International User Group - OASIS

The MoU on e-Business Standards

- Business Transaction Processing (BTP)
- Controlled Trade (CTML)
- ebXML Collaborative Partner (CPPA)
- ebXML Implementation, Interoperability, Conformance (IIC)
- ebXML Messaging
- ebXML Registry
- Universal Business Language (UBL)
- Access Control (XACML)
- Common Biometric Format (XCBF)
- Rights Language
- Security Services (SAML)
- Web Services Security (WSS)

Participating International User Group - OAGIS

- OAGIS 9.0
  - CCTS 2.01 Alignment
  - 68 Business Scenarios
  - Approx 360 Messages
  - 10 new Nouns for 71 total (Objects)
  - Web Services support
  - Run Time BOD option
  - Design enhancements
  - Defect removal

Participating International User Group – EAN International

The MoU on e-Business Standards

- **EAN•UCC Global Standards Management Process (GSMP)**
- **Business Modelling using UML**
- **Global Data Dictionary (GDD)**
- **Identification numbering system**
- **Bar coding standards**
- **Radio Frequency Identification (GTAG)**
- **EANCOM (subset of UN/EDIFACT)**
- **EAN•UCC XML standards:**
  - **Simple-eb**
  - **Collaborative Planning Forecasting and Replenishment (CPFR)**

Participating International User Group – SWIFT

- Standards for payments, treasury, securities and trade finance

- UML business modelling

- Automatic generation of XML schemas from UML models

- Financial repository

- UML/XML standards for
  - Customer to Bank Payments
  - Interbank Retail Bulk Payments
  - Cash Reporting and Management
  - Securities Trading
  - Investment Funds Business

- Registration Authority for
  - ISO 9362 - Bank Identifier Code (BIC)
  - ISO 10383 - Market Identification Code (MIC)

Participating International User Group - CEN/ISSS

- **Electronic Commerce Workshop (WS/EC)**
- **e-Business Board for European Standardization (WS/eBES)**
- **Workshop on Multilingual Catalogue Strategies for e-Commerce and e-Business (WS/ECAT)**
- **Sector Workshops on e-Business issues:**
  - **Footwear (WS/FINEC)**
  - **Clothing and Textiles (WS/Tex-Spin)**
  - **Construction (WS/eConstruct)**
  - **Furniture Product and Business Data (WS/fUN-STEP2)**
- **Pre-standardization Focus Groups:**
  - **e-Business standards roadmap, 2003-2005**
  - **Electronic Invoicing**

Key e-Business standards

- **ISO 10303 STEP for product data**
- **ISO 13584/IEC 61360 for component libraries**
- **ISO 15000 ebXML**
- **ISO 9735 EDIFACT**